

Notice of Allowability

Application No.

10/700,161

Applicant(s)

CANNON, BRET D.

Examiner

Art Unit

Michael P. Stafira

2877

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 11/28/2006.
2. ☒ The allowed claim(s) is/are 1-8, 10-12 and 14-27.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

DETAILED ACTION

Allowable Subject Matter

1. Claims 1-8, 10-12, 14-27 are allowed over the prior art of record.
2. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, the prior art fails to disclose or make obvious a method of controlling a difference between the first modulation index and the second modulation index; and combining the first frequency-modulated light signal and the second frequency-modulated light signal to reduce residual amplitude modulation in accordance with the difference, and in combination with the other recited limitations of claim 1. Claims 2-7, 26-27 would be allowed by the virtue of dependency on the allowed claim 1.

Regarding claim 8, the prior art fails to disclose or make obvious a method having the steps of providing frequency-modulated light carrying information and providing a first modulation index; generating other light that is frequency-modulated with a second modulation index, the other light having a carrier frequency different than the frequency-modulated light; at least partially nulling the undesired amplitude modulation with the other light to improve detection of the information, wherein the first modulation index is larger than the second modulation index, and in combination with the other recited limitations of claim 8. Claims 10-12, 14-15 are allowed by the virtue of dependency on the allowed claim 8.

Regarding claim 16, the prior art fails to disclose or make obvious an apparatus having an evaluation region to receive a substance for evaluation and direct the first light signal to the substance, the first light signal being altered by the substance when received in the region to

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provide a third frequency-modulated light signal carrying spectroscopic information about the substance and residual amplitude modulation; and a first detector responsive to the second light signal and a third light signal to provide an output representative of the spectroscopic information with the residual amplitude modulation reduced in accordance with a difference between the first modulation index and the second modulation index, and in combination with the other recited limitations of claim 16. Claims 16-24 are allowed by the virtue of dependency on the allowed claim 16.

Regarding claim 25, the prior art fails to disclose or make obvious an apparatus having means for interrogating a material to provide a first frequency-modulated light signal having a first modulation index, the first frequency-modulated light carrying spectroscopic information with residual amplitude modulation; means for generating a second frequency-modulated light signal having a second modulation index; means for combining the first frequency-modulated light signal and the second frequency-modulated light signal; and means for reducing the residual amplitude modulation in accordance with a difference between the first modulation index and the second modulation index to improve detection of the spectroscopic information, and in combination with the other recited limitations of claim 25.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael P. Stafira whose telephone number is 571-272-2430. The examiner can normally be reached on 4/10 Schedule Mon.-Thurs..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tarifur Chowdhury can be reached on 571-272-2800 ext. 77. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael P. Stafira
Primary Examiner
Art Unit 2877

February 9, 2007